

### Remarks

Claims 1-17 are pending. Claims 6-17 are withdrawn from consideration as being directed to a nonelected invention. Therefore, claims 1-5 are presently under examination. Claim 1 has been amended. Claim 18 has been cancelled. No new matter has been added.

#### Section 101 Rejection (Utility)

The Examiner has maintained the rejection of Claims 1-5 and 18 under 35 U.S.C. §101 as lacking utility. As Claim 18 has been cancelled, this rejection is obviated with respect thereto. With respect to Claims 1-5, this rejection is respectfully traversed. Applicants maintain the same position as previously presented.

The Examiner acknowledges that a skilled artisan would believe that the protein of SEQ ID NO:2 is a ubiquitin conjugating enzyme, but alleges that the utility set forth for this protein is neither specific nor substantial. This is despite the fact that the utility of ubiquitin conjugating enzymes is known. The Examiner alleges that ubiquitin conjugating enzymes comprise a highly diverse group of proteins which conjugate ubiquitin to a wide variety of different proteins with different enzymes having an enormous diversity in the specificity of substrates utilized, and concludes from this that the present invention lacks specific and substantial utility. Applicants respectfully submit that this is not the standard for determining utility.

As SEQ ID NO:2 clearly sets forth a ubiquitin conjugating enzyme (as acknowledged by the Examiner), Applicants submit that this is sufficient to establish Section 101 utility of the invention. The fact that *arguendo* the class of compounds to which the invention belongs is diverse is not relevant in determining if the present invention has specific and substantial utility in accordance with the PTO's interpretation of Section 101. The requirement for specific and substantial utility is meant to exclude "throw-away" utilities which are unrelated to the "real-world" use of the invention. This is clearly not the case with the present invention. To the contrary, the present specification sets forth several "real-world" utilities which are directly related to known uses of ubiquitin conjugating enzymes that one skilled in the art would readily ascribe to the present invention. As noted by the Examiner, these utilities include "diagnosis, treatment or prevention of cancers and tumors, or immune, lymphoproliferative, or neurodegenerative disorders". Whether or not a skilled artisan would further experiment to determine advantageous manners of using the present invention (i.e., for diagnostic purposes, therapeutic purposes, etc.) is not relevant to determining Section 101 utility. The fact that a skilled artisan would know to use the present invention for those purposes for which ubiquitin conjugating enzymes are used is what is relevant.

For these reasons, Applicants respectfully submit that the present invention satisfies Section 101 and withdrawal of the outstanding rejection is appropriate and respectfully requested.

Section 112, first paragraph, Rejections (Enablement)

The Examiner has rejected Claims 1-5 and 18 under 35 U.S.C. §112, first paragraph, as lacking enablement. As Claim 18 has been cancelled, this rejection is obviated with respect thereto.

The Examiner acknowledges that the specification enables polynucleotides encoding SEQ ID NO:2, but alleges that it fails to provide enablement for polynucleotides having at least 80% identity to SEQ ID NO:2. Applicants respectfully submit that this rejection is obviated in view of the present amendments.

Section 102 Rejection

The Examiner has rejected Claims 1-5 under 35 U.S.C §102(b) as being anticipated by WO 99/46375 ("Specht"). The Examiner alleges that Specht teaches a polypeptide (SEQ ID NO: 248) which is 88% identical to SEQ ID NO:2 of the present application. Applicants respectfully submit that this rejection is obviated in view of the present amendments.

Section 103 Rejection

The Examiner has maintained the rejection of 18 under 35 U.S.C §103(a) as being unpatentable over Specht. Applicants respectfully submit that this rejection is obviated in view of the cancellation of Claim 18.

Conclusion

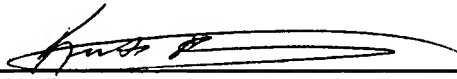
In view of the remarks made herein, Applicants respectfully submit that the claims are in condition for allowance and favorable action is therefore respectfully requested.

Please direct any questions concerning this Response or any aspect of this case to the undersigned attorney.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 19-3880 in the name of Bristol-Myers Squibb Company.

Respectfully submitted,

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